

IN THE CLAIMS:

Please amend Claims 1, 10 to 13 and 17 to 19, and add new Claim 21 as shown below. The claims, as pending in the subject application, now read as follows:

1. (Currently amended) An information processing apparatus that serves as a host computer for forming print data which can be interpreted by a printing apparatus, comprising:

receiving means for receiving draw information based on a print document formed by an application;

obtaining means for obtaining a plurality of pieces of print set information stored in a storage unit;

estimating means for estimating, based on the draw information received by said receiving means and for each of the plurality of pieces of print set information obtained by said obtaining means, a plurality of print times, each [[time]] required for a printing process of the draw information, the plurality of print times respectively corresponding to the plurality of pieces of print set information;

display control means for controlling such that the plurality of print times estimated by said estimating means for the draw information are displayed before the print data is formed ~~received by said receiving means;~~ and

forming means for forming, ~~if a user is informed of the print times estimated for the plurality of pieces of print set information by said estimating means and if execution of the printing process is determined~~ after the plurality of print times are displayed by said display control means, said print data which can be interpreted by the printing apparatus based on the

draw information received by said receiving means and a selected one of the plurality of pieces of print set information.

2. (Original) An apparatus according to claim 1, wherein said obtaining means obtains the draw information including an ID of every object constructing said print document before the execution of the print through an expansion API provided between a printer driver and said application.

3. (Original) An apparatus according to claim 1, wherein said print set information is information regarding print quality in said print data.

4. (Original) An apparatus according to claim 1, wherein said print set information includes information regarding print quality in said print data and information regarding a print layout.

5. (Previously presented) An apparatus according to claim 1, wherein said estimating means estimates the print time required for the printing process of one piece of draw information received by said receiving means for each of the plurality of pieces of print set information obtained by said obtaining means, and further comprising:

informing means for informing the user of the print times estimated for the plurality of pieces of print set information by said estimating means before said print data is formed by said forming means.

6. (Original) An apparatus according to claim 5, wherein said informing means provides said print time and a user interface for promoting an input of an instruction to execute the printing process which requires said print time.

7. (Original) An apparatus according to claim 6, wherein the user interface which is informed by said informing means accepts the input of the instruction for canceling the execution of the printing process which requires said print time.

8. (Previously presented) An apparatus according to claim 1, further comprising setting means for setting the plurality of pieces of print set information to be obtained by said obtaining means.

9. (Original) An apparatus according to claim 1, further comprising transmitting means for transmitting said print data to said printing apparatus through a network.

10. (Currently amended) An information processing method of forming print data which can be interpreted by a printing apparatus, comprising:

a receiving step of receiving draw information based on a print document formed by an application;

an obtaining step of obtaining a plurality of pieces of print set information stored in a storage unit

an estimating step of estimating, based on the draw information received in said receiving step and for each of the plurality of pieces of print set information obtained in said

obtaining step, a plurality of print times, each [[time]] required for a printing process of the draw information, the plurality of print times respectively corresponding to the plurality of pieces of print set information;

a display control step of controlling such that the plurality of print times estimated in said estimating step for the draw information are displayed before the print data is formed received in said receiving step; and

a forming step of forming, ~~if a user is informed of the print times estimated for the plurality of pieces of print set information in said estimating step and~~ if execution of the printing process is determined after the plurality of print times are displayed in said display control step, said print data which can be interpreted by the printing apparatus based on the draw information received in said receiving step and a selected one of the plurality of pieces of print set information.

11. (Currently amended) A computer-readable memory medium which stores an information processing program for an information processing apparatus that serves as a host computer for forming print data which can be interpreted by a printing apparatus, wherein said program comprises:

a receiving step of receiving draw information based on a print document formed by an application;

an obtaining step of obtaining a plurality of pieces of print set information stored in a storage unit;

an estimating step of estimating, based on the draw information received in said receiving step and ~~for each of~~ the plurality of pieces of print set information obtained in said

obtaining step, a plurality of print times, each [[time]] required for a printing process of the draw information, the plurality of print times respectively corresponding to the plurality of pieces of print set information;

a display control step of controlling such that the plurality of print times estimated in said estimating step for the draw information are displayed before the print data is formed received in said receiving step; and

a forming step of forming, ~~if a user is informed of the print times estimated for the plurality of pieces of print set information in said estimating step and~~ if execution of the printing process is determined after the plurality of print times are displayed in said display control step, said print data which can be interpreted by the printing apparatus based on the draw information received in said receiving step and a selected one of the plurality of pieces of print set information.

12. (Currently amended) A computer-executable program stored on a computer-readable memory medium, said program for forming print data which can be interpreted by a printing apparatus, said program comprising:

a receiving step of receiving draw information based on a print document formed by an application;

an obtaining step of obtaining a plurality of pieces of print set information stored in a storage unit;

an estimating step of estimating, based on the draw information received in said receiving step and ~~for each of~~ the plurality of pieces of print set information obtained in said obtaining step, a plurality of print times, each [[time]] required for a printing process of the draw

information, the plurality of print times respectively corresponding to the plurality of pieces of print set information;

a display control step of controlling such that the plurality of print times estimated in said estimating step for the draw information are displayed before the print data is formed received in said receiving step; and

a forming step of forming, ~~if a user is informed of the print times estimated for the plurality of pieces of print set information in said estimating step and if execution of the printing process is determined~~ after the plurality of print times are displayed by said display control means, said print data which can be interpreted by the printing apparatus based on the draw information received in said receiving step and a selected one of the plurality of pieces of print set information.

13. (Currently amended) An information processing apparatus that serves as a host computer for forming print data which can be interpreted by a printing apparatus, comprising:

obtaining means for obtaining draw information based on a print document formed by an application;

estimating means for based on analyzing the draw information obtained by said obtaining means and a plurality of print modes stored in a storage unit, ~~and for~~ estimating a plurality of print times, each [[time]] required for a printing process of the draw information, ~~the for each of a plurality of print times respectively corresponding to the plurality of print modes stored in a storage unit;~~

display control means for controlling such that the plurality of ~~allowing the print times~~ [[time]] estimated by said estimating means for the draw information are ~~to be~~ displayed in correspondence to ~~each of~~ the plurality of print modes;

selection means for selecting one of the plurality of print modes displayed by said display control means via a user interface; and

forming means for forming said print data based on the one print mode selected by said selection means and the draw information obtained by said obtaining means.

14. (Previously presented) An apparatus according to claim 13, wherein said display control means allows a button for displaying a preview image for confirming an image quality to be displayed in correspondence to said plurality of print modes.

15. (Original) An apparatus according to claim 13, further comprising discriminating means for analyzing the draw information which is obtained by said obtaining means and discriminating a proper print mode from said plurality of print modes, wherein said display control means allows a message for recommending the print mode discriminated by said discriminating means to be displayed.

16. (Original) An apparatus according to claim 15, wherein said discriminating means discriminates the proper print mode on the basis of a ratio of color data of the draw information.

17. (Currently amended) An information processing method of forming print data which can be interpreted by a printing apparatus, comprising:

an obtaining step of obtaining draw information based on a print document formed by an application;

an estimating step of based on analyzing the draw information obtained in said obtaining step and a plurality of print modes stored in a storage unit, and of estimating a plurality of print times, each [[time]] required for a printing process of the draw information, the for each of a plurality of print times respectively corresponding to the plurality of print modes stored in a storage unit;

a display control step of controlling such that the plurality of ~~allowing the~~ print times [[time]] estimated in said estimating step for the draw information are to be displayed in correspondence to ~~each of~~ the plurality of print modes;

a selection step of selecting one of the plurality of print modes displayed in said display control step via a user interface; and

a forming step of forming the print data based on the one print mode selected in said selection step and the draw information obtained in said obtaining step.

18. (Currently amended) A computer-readable memory medium which stores an information processing program for an information processing apparatus that serves as a host computer for forming print data which can be interpreted by a printing apparatus, wherein said program comprises:

an obtaining step of obtaining draw information based on a print document formed by an application;



an estimating step of, based on analyzing the draw information obtained in said obtaining step and a plurality of print modes stored in a storage unit, ~~and of~~ estimating a plurality of print times, each [[time]] required for a printing process of the draw information, the ~~for each of a~~ plurality of print times respectively corresponding to the plurality of print modes stored in a storage unit;

a display control step of controlling such that the plurality of ~~allowing the~~ print times [[time]] estimated in said estimating step for the draw information are to be displayed in correspondence to ~~each of~~ the plurality of print modes;

a selection step of selecting one of the plurality of print modes displayed in said display control step via a user interface; and

a forming step of forming the print data based on the one print mode selected in said selection step and the draw information obtained in said obtaining step.

19. (Currently amended) A computer-executable program stored on a computer-readable memory medium, the program for forming print data which can be interpreted by a printing apparatus, said program comprising:

an obtaining step of obtaining draw information based on a print document formed by an application;

an estimating step of, based on analyzing the draw information obtained in said obtaining step and a plurality of print modes stored in a storage unit, ~~and of~~ estimating a plurality of print times, each [[time]] required for a printing process of the draw information, the ~~for each of a~~ plurality of print times [[modes]] respectively corresponding to the plurality of print modes stored in a storage unit;

a display control step of controlling such that the plurality of ~~allowing the print times~~ [[time]] estimated in said estimating step for the draw information are ~~to be~~ displayed in correspondence to ~~each of~~ the plurality of print modes;

a selection step of selecting one of the plurality of print modes displayed in said display control step via a user interface; and

a forming step of forming the print data based on the one print mode selected in said selection step and the draw information obtained in said obtaining step.

20. (Previously presented) An apparatus according to Claim 5, further comprising selection means for selecting one of the plurality of pieces of print set information stored in the storage unit for execution of the printing process after said informing means informs the user of the estimated print times.

21. (New) An apparatus according to claim 5, wherein said display control means controls such that the plurality of print times, each required for the printing process of the draw information, respectively corresponding to the plurality of print modes, are displayed simultaneously.